

APR 17 2007

Serial No. 10/757,391

Supplemental Amendment dated April 17, 2007

Atty. Docket No. 249/436

Supplemental Amendment to RCE filed January 22, 2007**REMARKS**

Prior to entry of this amendment, claims 1-10 and 21-23 are currently pending in the subject application. Claims 22 and 23 have been withdrawn from consideration.

By this amendment, claim 1 is amended and claims 24-30 are added. Support for the amendments may be at least found in FIGS. 10A through 10D and paragraphs [0054] through [0066] of the originally filed specification. No new matter is added.

Claims 1-10 and 21-30 are presented to the Examiner for consideration. Claims 1, 24 and 28 are independent.

A. Introduction

In the outstanding Office Action Made Final, the Examiner objected to claim 10 as lacking antecedent basis for the term "atmospheric pressure"; rejected claim 1 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement; and rejected claims 1-10 and 21 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,144,340 to Hotomi et al. ("the Hotomi et al. reference").

B. Applicant Initiated Interview Summary

On April 11, 2007, an applicant initiated in-person interview was conducted. Applicants appreciate the courtesies extended to applicants' representative by Examiners Geoffrey Mruk and Manish Shah during the in-person interview. As required by 37 C.F.R. § 1.133(b), applicants' summary of the interview is as follows:

1. Brief Description of any Exhibit Shown

No exhibit was shown or demonstrated during the April 11, 2007, interview.

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2. Identification of Claims Discussed

The Examiners and applicants' representative discussed independent claim 1 and proposed independent claims 24 and 28.

3. Identification of the Specific Prior Art Discussed

The Examiners and applicants' representative discussed the Hotomi et al. reference.

4. Identification of Proposed Amendments

New claims 24-30, including independent claims 24 and 28, as set forth in the above listing of claims, were proposed during the April 11, 2007, interview.

5. Summary of the Arguments Presented to the Examiners

Applicant representative asserted that the Hotomi et al. reference fails to disclose or suggest "to vary a surface tension of the ink to separate ink droplets having a predetermined volume from the ink within the front end of the nozzle" and to move the "separated ink droplet" within the front end of the nozzle toward the outlet of the nozzle. In particular, applicants representative asserted that the substantially circular portions shown, e.g., in FIGS. 16 and 35 of the Hotomi et al. reference, are merely illustrating some of the inking solution In that may be expelled outwards as an ink droplet In'. More particularly, applicants representative asserted that in the Hotomi et al. reference and the prior art shown in FIG. 35 of the Hotomi et al. reference, the inking solution occupies the nozzle 16x up to the orifice 17x and some of the inking solution In is ejected therefrom when electric charge is injected into the inking solution In situated by the orifice 17x, as set forth in col. 16, line 59 to col. 17, line 9 of the Hotomi et al. reference.

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No other pertinent matters were discussed.

7. General Outcome of the Interview

Examiners Mruk and Shah agreed that new independent claims 24 and 28 are allowable over the art of record. Examiner Mruk stated that the rejection of claim 1 under 35 U.S.C. 112, first paragraph would be maintained without an amendment to the claim.

C. Objection to Claim 10

In the outstanding Office Action Made Final, the Examiner objected to claim 10 as lacking antecedent basis for the term "an atmospheric pressure." Claim 10 was amended in previously filed amendment. Thus, it is respectfully requested that the objection be withdrawn.

D. Rejection of Claim 1 under 35 U.S.C. § 112, First Paragraph

In the outstanding Office Action Made Final, the Examiner rejected claim 1 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

While applicants may not agree with the statements on page 3 of the outstanding Office Action, claim 1 now recites "modifying a magnitude and location of the electric field to modify a surface property of the hydrophobic layer to hydrophilic." Support for these features may be at least found in paragraph [0056] of the originally filed specification. It is respectfully requested that the rejection be withdrawn.

E. Asserted Anticipation Rejection of Independent Claims 1-10 and 21

In the outstanding Office Action Made Final, the Examiner rejected claims 1-10 and 21 under 35 U.S.C. § 102(b) as being anticipated by the Hotomi et al. reference.

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Claim 1 now recites, in part:

modifying a magnitude and location of the electric field to modify a surface property of the hydrophobic layer to hydrophilic and vary a surface tension of the ink to separate at least one ink droplet having a predetermined volume from the ink within the front end of the nozzle and to move the at least one separated ink droplet within the front end of the nozzle toward the outlet of the nozzle.

Applicants respectfully submit that the Hotomi et al. reference fails to disclose or suggest at least these features of claim 1. More particularly, as discussed and agreed during personal interview the Hotomi et al. reference fails to disclose or suggest “modifying a surface property of the hydrophobic layer to hydrophilic” and separating “at least one ink droplet ... to move the at least one separated ink droplet within the front end of the nozzle,” as recited in claim 1.

For at least these reasons, applicants submit that the Hotomi et al. reference fails to disclose or suggest the combination of features recited in independent claim 1 as well as all the features recited in claims 2-10 and 21, which directly or indirectly depend from claim 1. It is respectfully requested that the rejection be withdrawn.

F. New Claims 24-30

As discussed above, during the April 11, 2007, in-person interview, new independent claims 24 and 28 were presented and discussed. Further, as stated above, during the in-person interview, Examiners Mruk and Shah agreed that claims 24 and 28 are allowable over the art of record. Thus, for at least the reasons that claims 24 and 28 are allowable over the art of record, dependent claims 25, 26, 27 and 29 are also allowable over the art of record.

New claim 30 directly depends from claim 1, and thus, is allowable for at least the reasons discussed above with regard to independent claim 1.

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Claims 22 and 23 indirectly depend from claim 1, and thus, would be allowable for at least the reasons that claim 1 is allowable. Thus, upon allowance of claim 1, applicants respectfully request that claims 22 and 23 be rejoined and allowed.

H. Conclusion

The remaining documents cited by the Examiner were not relied on to reject the claims. Therefore, no comments concerning these documents are considered necessary at this time.


If the Examiner believes that additional discussions or information might advance the prosecution of the instant application, the Examiner is invited to contact the undersigned at the telephone number listed below to expedite resolution of any outstanding issues.

In view of the foregoing amendments and remarks, reconsideration of this application is earnestly solicited, and an early and favorable further action upon all the claims is hereby requested.

Respectfully submitted,

LEE & MORSE, P.C.

Date: April 17, 2007


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PETITION and
DEPOSIT ACCOUNT CHARGE AUTHORIZATION

This document and any concurrently filed papers are believed to be timely. Should any extension of the term be required, applicant hereby petitions the Director for such extension and requests that any applicable petition fee be charged to Deposit Account No. 50-1645.

If fee payment is enclosed, this amount is believed to be correct. However, the Director is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-1645.

Any additional fee(s) necessary to effect the proper and timely filing of the accompanying papers may also be charged to Deposit Account No. 50-1645.

CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. §1.8

I hereby certify that this correspondence is being facsimile transmitted to the
United States Patent and Trademark Office on 4/17/07.

Cheryl A. Hilborn
Signature

Cheryl A. Hilborn
Name of Person Signing Certificate

Note: Each paper must have its own certificate of transmission, or this certificate must identify each submitted paper.